FIG. 1A

H36.D2.B7 Anti-Tissue Factor Light Chain Variable Region

```
GACATTCAGATGACCCAGTCTCCTGCCTCCCAGTCTGCATCTCTGGGAGAAAGTGTCACCATCACATGC
 D  I  Q  M  T  Q  S  P  A  S  Q  S  A  S  L  G  E  S  V  T  I  T  C

CTGGCAAGTCAGACCATTGATACATGGTTAGCATGGTATCAGCAGAAACCAGGGAAATCTCCTCAGCTC
 L  A  S  Q  T  I  D  T  W  L  A  W  Y  Q  Q  K  P  G  K  S  P  Q  L

CTGATTTATGCTGCCACCAACTTGGCAGATGGGGTCCCATCAAGGTTCAGTGGCAGTGGATCTGGCACA
 L  I  Y  A  A  T  N  L  A  D  G  V  P  S  R  F  S  G  S  G  S  G  T

AAATTTTCTTTCAAGATCAGCAGCCTACAGGCTGAAGATTTTGTAAATTATTACTGTCAACAAGTTTAC
 K  F  S  F  K  I  S  S  L  Q  A  E  D  F  V  N  Y  Y  C  Q  Q  V  Y

AGTTCTCCATTCACGTTCGGTGCTGGGACCAAGCTGGAGCTGAAA
 S  S  P  F  T  F  G  A  G  T  K  L  E  L  K
```

FIG. 1B

H36.D2.B7 Anti-Tissue Factor Heavy Chain Variable Region

```
GAGATCCAGCTGCAGCAGTCTGGACCTGAGCTGGTGAAGCCTGGGGCTTCAGTGCAGGTATCCTGCAAG
 E  I  Q  L  Q  Q  S  G  P  E  L  V  K  P  G  A  S  V  Q  V  S  C  K

ACTTCTGGTTACTCATTCACTGACTACAACGTGTACTGGGTGAGGCAGAGCCATGGAAAGAGCCTTGAG
 T  S  G  Y  S  F  T  D  Y  N  V  Y  W  V  R  Q  S  H  G  K  S  L  E

TGGATTGGATATATTGATCCTTACAATGGTATTACTATCTACGACCAGAACTTCAAGGGCAAGGCCACA
 W  I  G  Y  I  D  P  Y  N  G  I  T  I  Y  D  Q  N  F  K  G  K  A  T

TTGACTGTTGACAAGTCTTCCACCACAGCCTTCATGCATCTCAACAGCCTGACATCTGACGACTCTGCA
 L  T  V  D  K  S  S  T  T  A  F  M  H  L  N  S  L  T  S  D  D  S  A

GTTTATTTCTGTGCAAGAGATGTGACTACGGCCCTTGACTTCTGGGGCCAAGGCACCACTCTCACAGTC
 V  Y  F  C  A  R  D  V  T  T  A  L  D  F  W  G  Q  G  T  T  L  T  V

TCCTCA
 S  S
```

* CDR regions underlined.

Antibody	Apparent K_a, M^{-1}	Apparent K_d, M
By ELISA		
D2	5.2×10^9	1.9×10^{-10}
I47	6.5×10^9	1.5×10^{-10}
K73	9.8×10^9	1.0×10^{-10}
K80	2.3×10^9	4.3×10^{-10}
L102	2.5×10^9	4.0×10^{-10}
L133	1.7×10^9	5.9×10^{-10}
By BIACore		
H36	3.1×10^{10}	3.2×10^{-11}
I43	2.3×10^9	4.3×10^{-10}
I47	3.2×10^9	3.1×10^{-10}
L133	4.6×10^9	2.2×10^{-10}
M107	1.1×10^9	9.1×10^{-10}

FIG. 2

Antibody Name	% Inhibition Antibody Preincubated with TF/VIIa
D1	0
D1B	1
H31	4
H36	95
I43	1
J131	7
K80	0
K82	0
K87	1
L97B	7
L101	0
L102	0
L105	0
L133	0
M5	1
M107	34

FIG. 3

Antibody Name	% Inhibition TF Preincubated with Antibody Prior to Addition of VIIa	% Inhibition TF Preincubated with VIIa Prior to Addition of Antibody
D1	15	nd
D1B	48	12.7
H31	64	21
H36	0	0
I43	68	55
J131	38	11
K80	12	nd
K82	0	nd
K87	0	nd
L96	0	nd
L101	38	11
L102	14	nd
L105	4	nd
L133	13	nd
M5	0	nd
M107	0	nd

FIG. 4

[rhTF], nM	[H36.D2], nM	H36.D2/rhTF Molar Ratio	Clotting Time (seconds)	% Inhibition of rhTF Function
0.0048	0	0	102.3	0
	1.61	335.4	114.3	31.3
	3.23	670.8	121.3	45.8
0.023	0	0	77.6	0
	1.61	70.0	85.3	52.2
	3.23	140.0	91.1	65.2
	6.45	280.4	99.6	73.9
0.092	0	0	49.3	0
	3.23	35.1	65.8	65.2
	6.45	70.1	88.5	90.2
	12.90	140.2	113.3	95.7
0.46	0	0	32.6	0
	6.45	14.0	52.7	82.4
	12.90	28.0	80.2	96.7
	32.30	70.2	117.9	99.3
2.30	0	0	23.9	0
	16.10	7.0	47.1	94.4
	32.30	14.0	95.2	99.7
	64.50	28.0	115.3	99.9
11.52	0	0	22.2	0
	16.10	1.4	30.2	93.4
	32.30	2.8	46.0	98.8
	64.50	5.6	87.6	99.9
	161.30	14.0	114.0	100.0

FIG. 5

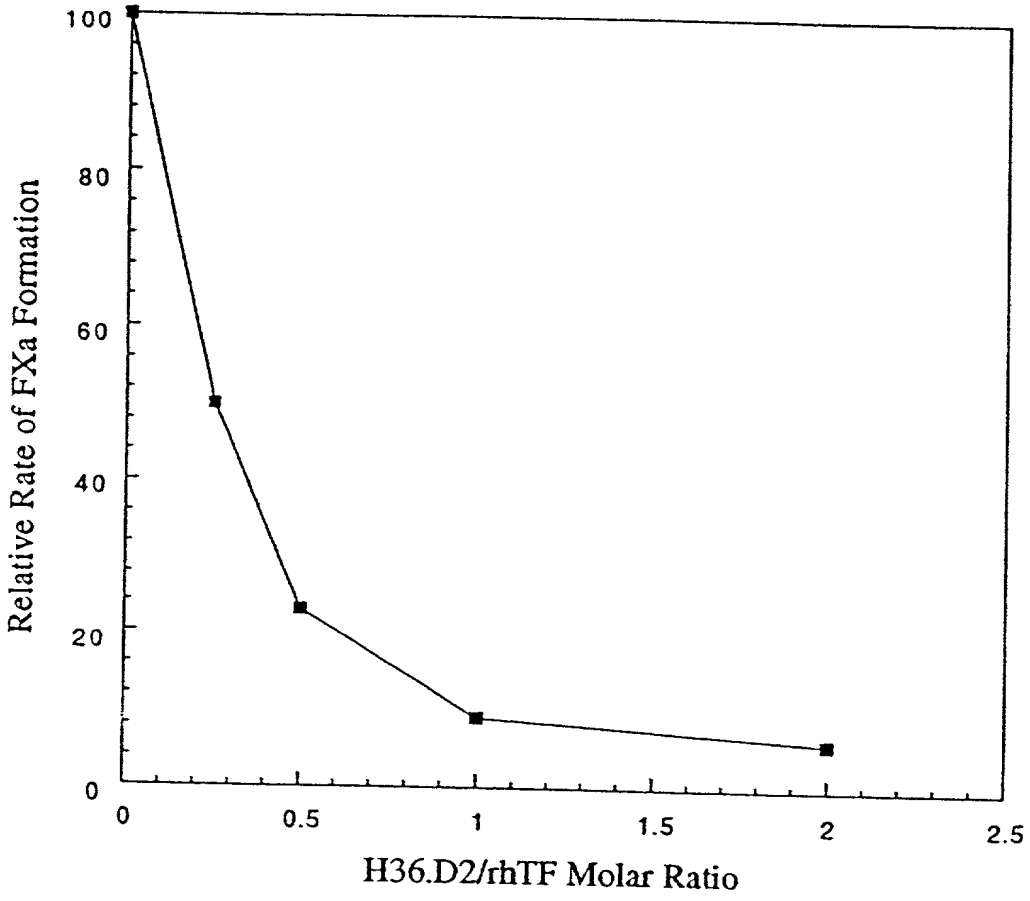

100
80
60
40
20
0
Relative Rate of FXa Formation
0
0.5
1
1.5
2
2.5
H36.D2/rhTF Molar Ratio

FIG. 6A

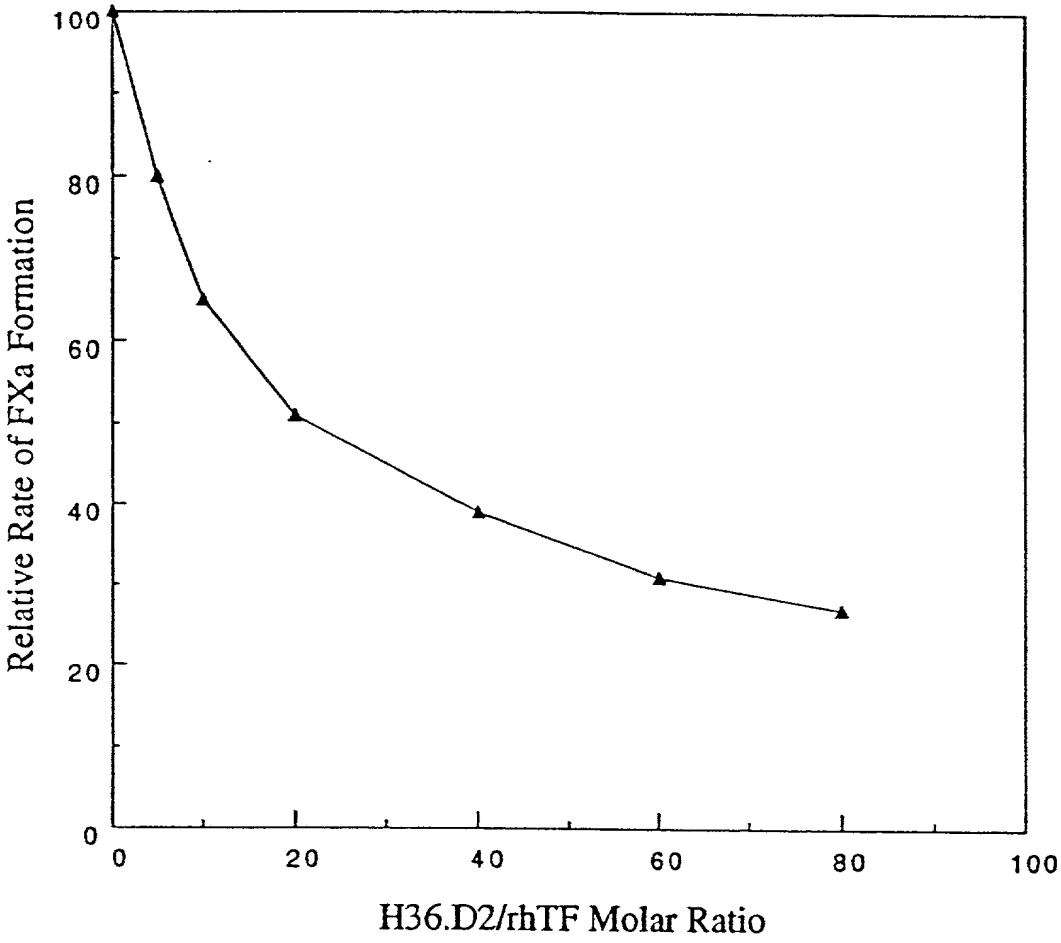


FIG. 6B

H36.D2 Concentration (ng)	% Inhibition Cells (TF/FVII) and H36.D2 preincubated prior to FX addition	% Inhibition FX and H36.D2 are added simultaneously to Cells (TF/FVII)
0	0	0
50	88	nd
100	92	nd
200	97	nd
800	nd	76
1600	nd	78
3200	nd	92

FIG. 7

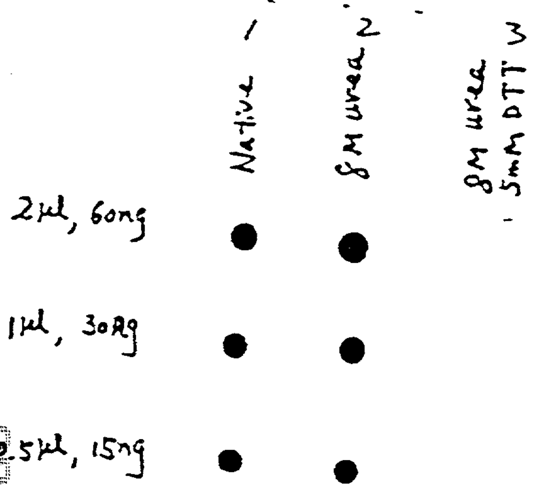

Native
8M urea
8M urea
5mM DTT
2µl, 60ng
1µl, 30ng
0.5µl, 15ng

FIG. 8A

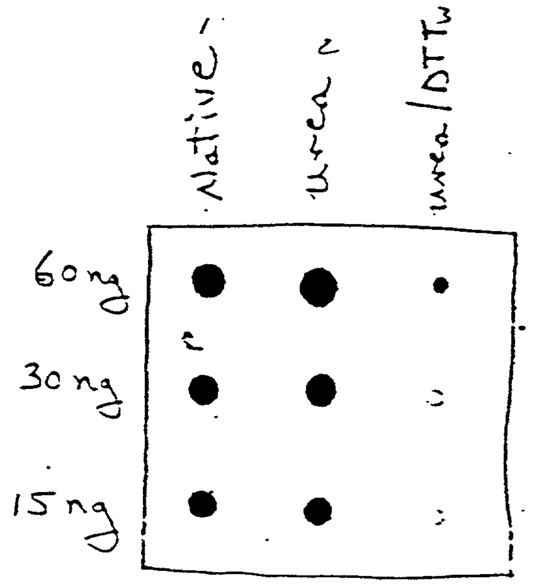
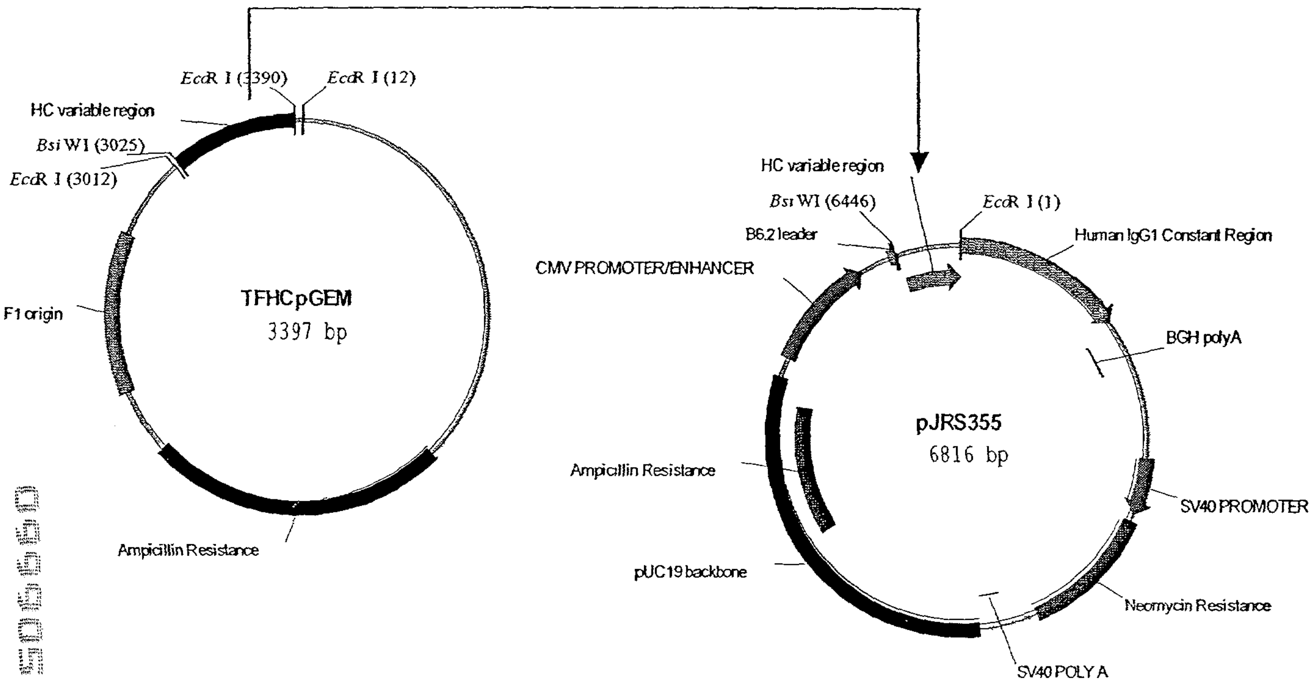

Native
urea
urea/DTT
60ng
30ng
15ng

FIG. 8B

Figure A. Human IgG1-cH36 HC Variable Region Cloning and Expression Vector



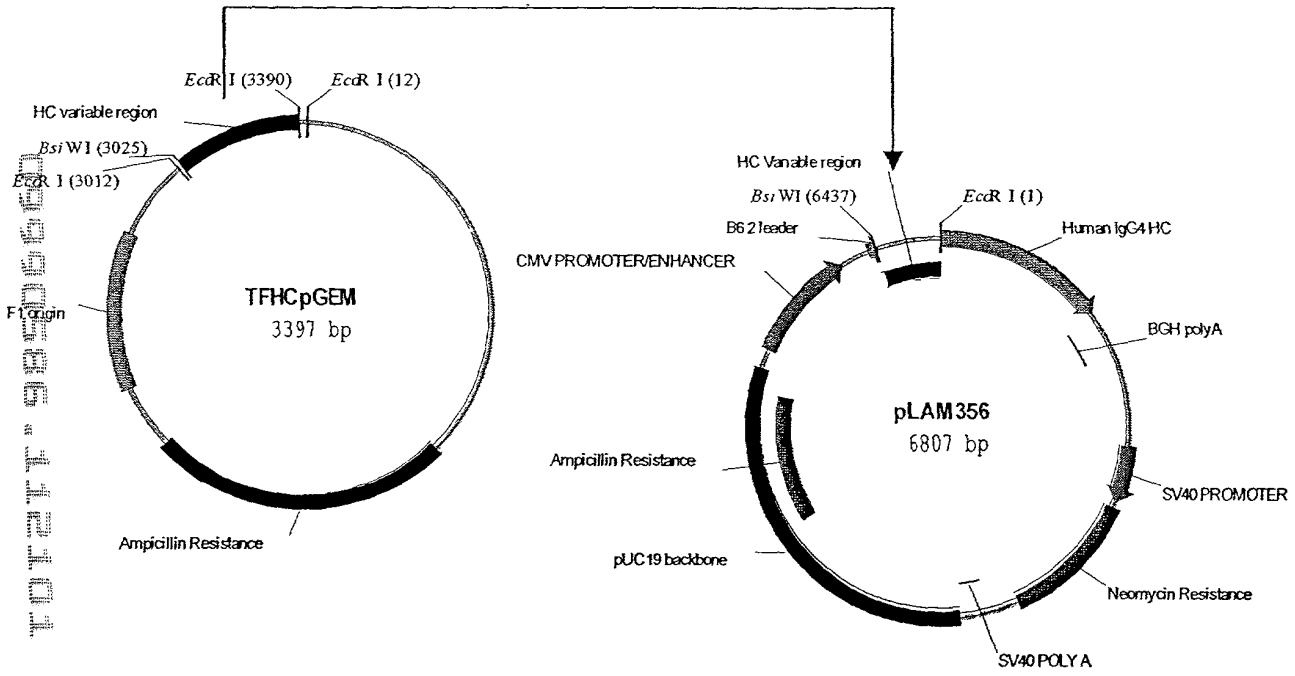
HC Cloning Vector

HC Expression Vector

Fig. 9A

Fig. 9B

Figure B. Human IgG4-cH36 HC Variable Region Cloning and Expression Vector



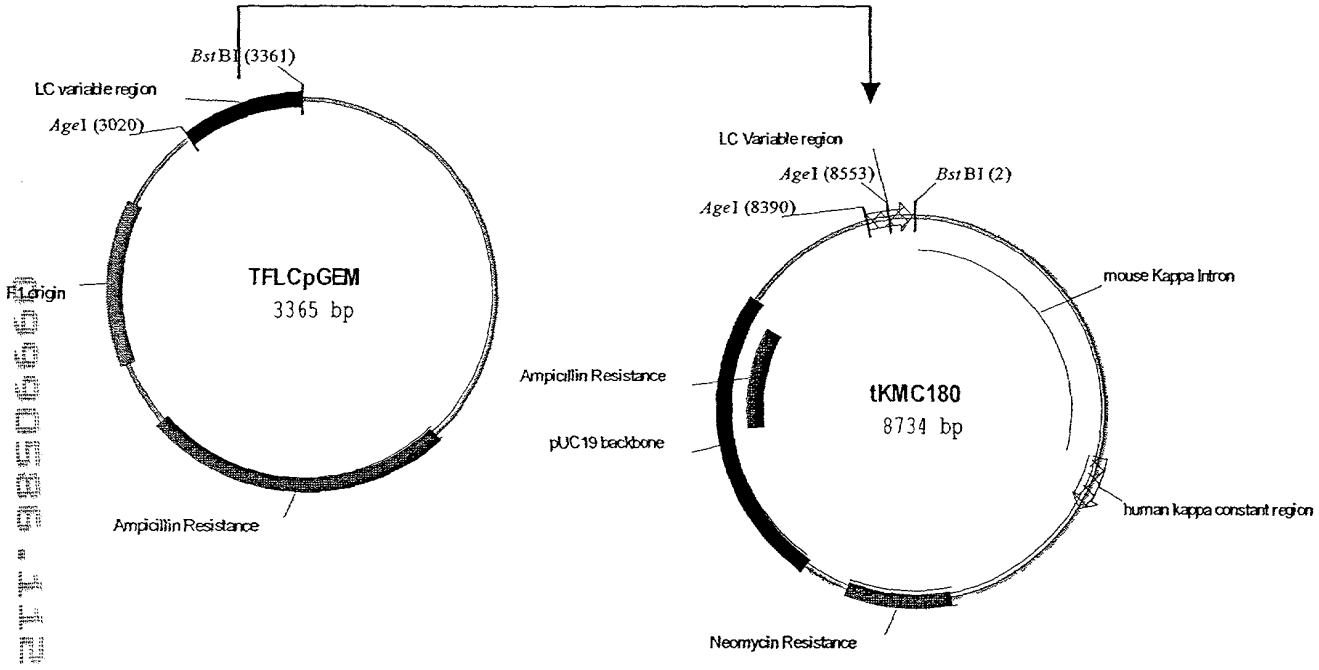
HC Cloning Vector

Fig. 9C

HC Expression Vector

Fig. 9D

Figure C. cH36 LC Variable Region Cloning and Expression Vector



LC Cloning Vector

LC Expression Vector

Fig. 10A

Fig. 10B

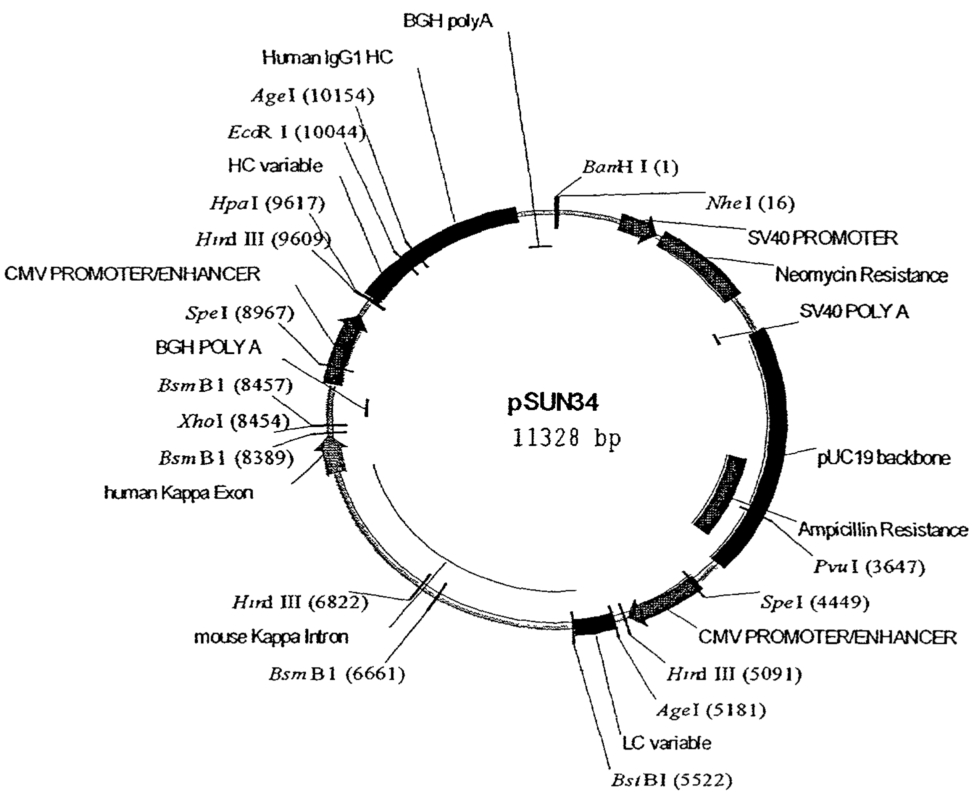


Figure D. Plasmid Map of Humanized Anti-TF IgG1 Antibody Expression Vector

Fig. 11

Humanization of anti-Tissue Factor Antibody cH36

Sequences of Partially and Fully Humanized Light Chain (LC) Variable Regions

Light Chain (LC) FR Sequences

FR1 (23 AA)	FR2 (14 AA)	FR3 (32 AA)	FR4 (10 AA)	Names
1 10 20	35 47	57 60 70 80 86	98 107	
DIQMTQSPA**S**QSASLGESV**T**ITC	**W**YQQKPGKSPQL**I**Y	**G**VP**S**RFSGSGSGT**K**FSFKISSLQ**A**EDFVN**Y**YC	**F**GAGTKLEL**K**	cH36-LC
DIQMTQSPASQSASLGESVTITC	WYQQKPGKSPQLIY	GVPSRFSGSGSGTKFSFKISSLQAEDFVNYYC	FGAGTKLEIK	LC-03
DIQMTQSPASQSASLGESVTITC	WYLQKPGKSPQLIY	GVPSRFSGSGSGTKFSFKISSLQAEDFVNYYC	FGAGTKLEIK	LC-04
DIQMTQSPASLSASVGDRVTITC	WYLQKPGKSPQLIY	GVPSRFSGSGSGTKFSFKISSLQAEDFVNYYC	FGQGTKLEIK	LC-05
DIQMTQSPASQSASLGESVTITC	WYLQKPGKSPQLIY	GVPSRFSGSGSGTKFSFKISSLQAEDFVNYYC	FGQGTKLEIK	LC-06
DIQMTQSPASQSASLGESVTITC	WYLQKPGKSPQLIY	GVPSRFSGSGSGTDFSFTISSLQPEDFVNYYC	FGQGTKLEIK	LC-07
DIQMTQSPASQSASLGESVTITC	WYLQKPGKSPQLIY	GVPSRFSGSGSGTDFSFTISSLQPEDFATYYC	FGQGTKLEIK	LC-08
DIQMTQSPASLSASVGDRVTITC	WYLQKPGKSPQLIY	GVPSRFSGSGSGTDFSFTISSLQPEDFATYYC	FGQGTKLEIK	LC-09
DIQMTQSPASLSASVGDRVTITC	WYLQKPGKSPQLIY	GVPSRFSGSGSGTDFSFTISSLQPEDFANYYC	FGQGTKLEIK	LC-10
DIQMTQSPASLSASVGDRVTITC	WYLQKPGKSPQLIY	GVPSRFSGSGSGTKFSFTISSLQPEDFANYYC	FGQGTKLEIK	LC-11
DIQMTQSPASLSASVGDRVTITC	WYLQKPGQSPQLIY	GVPSRFSGSGSGTKFSFTISSLQPEDFANYYC	FGQGTKLEIK	LC-12

Fig. 12A

Light Chain CDR Sequnces of cH36

CDR1 (11 AA)	CDR2 (7 AA)	CDR3 (9 AA)
24 34	50 56	89 97
L A S Q T I D T W L A	***A A T N L A D***	***Q Q V Y S S P F T***

Fig. 12B Fig. 12C Fig. 12D

Sequences of Partially and Fully Humanized Heavy Chain (LC) Variable Regions

Heavy Chain (HC) FR Sequences

FR1 (30 AA) 1–29	FR2 (14 AA) 36–44	FR3 (32 AA) 67–95	FR4 (11 AA) 107–117	Names
EIQLQQSGP**E**LVKPGASVQ**V**SCKTSGYS**F**T	**W**VRQSHGK**S**LEWIG	**K**ATLTVDK**S**STTAFMHLN**S**LTSDDSAVY**F**CAR	**W**GQGTTLTVS**S**	cH36-HC
QIQLQQSGPELVKPGASVQVSCKTSGYSFT	WVRQSHGKSLEWIG	KATLTVDKSSTTAFMHLNSLTSDDSAVYFCAR	WGQGTTVTVSS	HC-01
QIQLQQSGPELVKPGASVQVSCKTSGYSFT	WVRQSPGKGLEWIG	KATLTVDKSSTTAFMHLNSLTSDDSAVYFCAR	WGQGTTVTVSS	HC-02
QIQLQQSGPELVKPGASVQVSCKTSGYSFT	WVRQSPGKGLEWIG	KATLTVDKSSTTAFMHLNSLRSEDTAVYFCAR	WGQGTTVTVSS	HC-03
QIQLQQSGPELVKPGASVQVSCKTSGYSFT	WVRQSPGKGLEWIG	KATLTVDKSSTTAFMELSSLRSEDTAVYFCAR	WGQGTTVTVSS	HC-04
QIQLQQSGPELVKPGASVQVSCKTSGYSFT	WVRQSPGKGLEWIG	KATLTVDKSTSTAYMELSSLRSEDTAVYFCAR	WGQGTTVTVSS	HC-05
QMQLQQSGGELVKPGASVRVSCKASGYSFT	WVRQSPGKGLEWIG	KATLTVDKSTSTAYMELSSLRSEDTAVYFCAR	WGQGTTVTVSS	HC-06
QIQLVQSGGELVKPGASVRVSCKASGYSFT	WVRQSPGKGLEWIG	KATLTVDKSTSTAYMELSSLRSEDTAVYFCAR	WGQGTTVTVSS	HC-07
QIQLVQSGGEVKKPGASVRVSCKASGYSFT	WVRQSPGKGLEWIG	KATLTVDKSTSTAYMELSSLRSEDTAVYFCAR	WGQGTTVTVSS	HC-08
QIQLVQSGGEVKKPGASVRVSCKASGYSFT	WVRQSPGKGLEWIG	KATLTVDKSTSTAYMDLSSLRSEDTAVYFCAR	WGQGTTVTVSS	HC-08R1
QIQLVQSGPEVKKPGASVRVSCKASGYSFT	WVRQSPGKGLEWIG	KATLTVDKSTSTAYMELSSLRSEDTAVYFCAR	WGQGTTVTVSS	HC-11
QIQLVQSGPELKKPGASVRVSCKASGYSFT	WVRQSPGKGLEWIG	KATLTVDKSTSTAYMELSSLRSEDTAVYFCAR	WGQGTTVTVSS	HC-12
QIQLVQSGPELVKPGASVRVSCKASGYSFT	WVRQSPGKGLEWIG	KATLTVDKSTSTAYMELSSLRSGDTAVYFCAR	WGQGTTVTVSS	HC-09
QIQLVQSGPEVVKPGASVRVSCKASGYSFT	WVRQSPGKGLEWIG	KATLTVDKSTSTAYMELSSLRSEDTAVYFCAR	WGQGTTVTVSS	HC-10

Fig. 13A

Heavy Chain CDR Sequnces

CDR1 (5 AA) 31–35	CDR2 (17 AA) 50–66	CDR3 (8AA) 99–106	Names
D Y N V Y	*Y I D P Y N G I T I Y D Q N F K G*	*D V T T A L D F*	*cH36*
D Y N V Y	*Y I D P Y N G I T I Y D Q N D K G*	*D V T T A L D F*	*HC-08*

Fig. 13B

Fig. 13C

Fig. 13D

hOAT (IgG1) Constant regions sequences

Sequences of LC constant:

RTVAAPSVFIFPPSDEQLKSGTASVVCLLNNFYPREAKVQWKVDNALQSGNSQESVTEQDSKDSTYSLSSTLTLSKADYEKH

KVYACEVTHQGLSSPVTKSFNRGEC

Fig. 14A

Sequences of HC constant:

EFASTKGPSVFPLAPSSKSTSGGTAALGCLVKDYFPEPVTVSWNSGALTSGVHTFPAVLQSSGLYSLSSVVTVPSSSLGTQTYIC

NVNHKPSNTKVDKKVEPKSCDKTHTCPPCPAPELLGGPSVFLFPPKPKDTLMISRTPEVTCVVVDVSHEDPEVKFNWYVDGVEV

HNAKTKPREEQYNSTYRVV SVLTVLHQDWLNGKEYKCKVSNKALPAPIEKTISKAKGQPREPQVYTLPPSRDELTKNQVSLTCL

VKGFYPSDIAVEWESNGQPENNYKTTPPVLDSDGSFFLYSKLTVDKSRWQQGNVFSCSVMHEALHNHYTQKSLSLSPGK

Fig. 14B

hFAT (IgG4) constant region sequences

Sequences of LC Constant:

RTVAAPSVFIFPPSDEQLKSGTASVVCLLNNFYPREAKVQWKVDNALQSGNSQESVTEQDSKDSTYSLSSTLTLSKADYEK

HKVYACEVTHQGLSSPVTKSFNRGEC

Fig. 15A

Sequences of HC constant:

EFASTKGPSVFPLAPCSRSTSESTAALGCLVKDYFPEPVTVSWNSGALTSGVHTFPAVLQSSGLYSLSSVVTVPSSSLGTKTY

TCNVDHKPSNTKVDKRVESKYGPPCPSCPAPEFLGGPSVFLFPPKPKDTLMISRTPEVTCVVVDVSQEDPEVQFNWYVDGV

EVHNAKTKPREEQFNSTYRVVSVLTVLHQDWLNGKEYKCKVSNKGLPSSIEKTISKAKGQPREPQVYTLPPSQEEMTKNQVSL

TCLVKGFYPSDIAVEWESNGQPENNYKTTPPVLDSDGSFFLYSRLTVDKSRWQEGNVFSCSVMHEALHNHYTQKSLSLSLGK

Fig. 15B